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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/865,219	05/25/2001	Takashi Saito	14653	2617

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EXAMINER

LUU, LE HIEN

ART UNIT PAPER NUMBER

2141

DATE MAILED: 07/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/865,219

Applicant(s)

SAITO, TAKASHI

Examiner

Le H. Luu

Art Unit

2141

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 6, 8 and 9 is/are rejected.
- 7) ☒ Claim(s) 2-5, 7 and 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 05/25/01-11/12/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

1. Claims 1-10 are presented for examination.
2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.
3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 6, and 8-9 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over Giroux et al. (Giroux) patent no. 6,618,378, in view of Goldman et al. (Goldman) patent no. 6,829,224.

5. As to claim 1, Giroux teaches the invention substantially as claimed, including a scheduling circuit comprising:

an IP (Internet Protocol) scheduling/format converting section for scheduling input IP packets and converting each of said IP packet to ATM (Asynchronous Transfer Mode) cells; said IP scheduling/format converting section including a plurality of packet queues and per-VC queues (Figure 2; col. 5 line 66 – col. 7 line 51);

a plurality of cell FIFOs to each of which the ATM cells output from a corresponding one of traffic on virtual channels (col. 6 line 7 – col. 7 line 6); and

an ATM scheduling section for scheduling the ATM cells received from each of said traffic on said virtual channels cell by cell (col. 6 line 7 – col. 7 line 6).

However, Giroux does not explicitly teach a plurality of packet FIFOs, and said plurality of cell FIFOs to each of which the ATM cells output from a corresponding one of said plurality of packet FIFOs.

Goldman teaches a plurality of queue groups $310_1 - 310_N$, and a plurality of cell FIFOs $265_1 - 265_N$ to each of which the ATM cells output from a corresponding one of said plurality of queue groups $310_1 - 310_N$ (col. 4 line 45 – col. 5 line 39).

It would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention to combine the teachings of Giroux and Goldman to provide a plurality of packet FIFOs, and said plurality of cell FIFOs to each of which the ATM cells output from a corresponding one of said plurality of packet FIFOs because it would smooth a rate of cell discards for random early detection.

6. As to claims 6 and 9, Giroux teaches said ATM scheduling section comprises a VCI identifying circuit for identifying the VCI of each ATM cell by referencing a header attached to said ATM cell (Figure 9).

7. As to claim 8, Giroux teaches when any one of said plurality of packet FIFOs overflows, said IP scheduling/format converting section discards an entire packet (col. 1 lines 54-67; col. 7 lines 6-27).

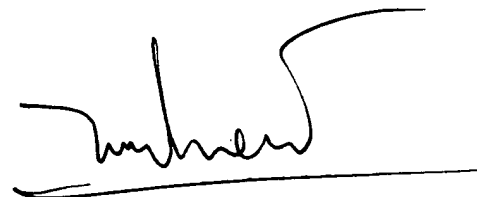
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8. Claims 2-5, 7, and 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Le H. Luu whose telephone number is 571-272-3884. The examiner can normally be reached on 7:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on 571-272-3880. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Le Hien Luu', is written over a horizontal line.

LE HIEN LUU
PRIMARY EXAMINER

June 30, 2005